

SYSTEM AND METHOD FOR MAPPING INFINIBAND COMMUNICATIONS TO AN EXTERNAL PORT, WITH COMBINED BUFFERING OF VIRTUAL LANES AND 5 QUEUE PAIRS

ABSTRACT

A system and method for mapping outbound communications (e.g., encapsulated Ethernet packets) from InfiniBand queue pairs (QP) and/or virtual lanes (VL) to
10 ports through which they are to be transmitted to an external communication system. A memory is shared between the InfiniBand receive side and transmit side. A shared control structure facilitates management of a linked list for each queue pair. A linked list is composed of entries in the control structure; each entry stores a value identifying the next control entry in the list and a memory
15 bucket associated with the entry. Each queue pair terminating has a head pointer identifying the first control entry and memory bucket, and a tail pointer identifying the last control entry and memory bucket of a linked list. When a communication is reassembled, pointers defining a sub-list comprising the communication are passed to a network transmit module.